

Work Order ID 63367

Thursday, October 28, 2010 9:57:48 AM



Page 1

Item ID: D2893-1

Accept



Setup Start



Revision ID:

Stop



Item Name: 2.75 Support

Start Date: 10/28/2010 Start Qty: 20.00



Cust Item ID:

Required Date: 11/18/2010 Req'd Qty: 20.00



Customer:

Reference:

Approvals:

Process Plan:

[Signature]

Date: 10-10-25

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2893	Rev B								

100

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

aml 10/12/22

20

[Signature]

HAAS CNC vertical machine #1

Machine as per Folio FA081 □ Tumble & Deburr

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

aml 10/12/22

20

[Signature]

Quality Control

120

0.00



QC8- Inspect parts - second check

QC

Memo

0.00

SL 11/01/04

[Signature]

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 63367

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Page 2

Item ID: D2893-1

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Setup Start



Revision ID:

Stop



Item Name: 2.75 Support

Start Date: 10/28/2010 Start Qty: 20.00



Cust Item ID:

Required Date: 11/18/2010 Req'd Qty: 20.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum <i>M/115951</i> Memo Mask Inside Bore for <i>Painting</i> START TIME: <i>1:05</i> OVEN TEMPERATURE: <i>400°</i> FINISH TIME: <i>1:35</i>	0.00 0.00				<i>20</i>	<i>0</i>	<i>11-01-10</i>	
140 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00		<i>=) M 11/01/10</i>		<i>20</i>	<i>0</i>		
150 SprayPaint Spray Painting	SprayPaint Memo Prime inside surface as per Dwg D2893 and QSI 005 4.3	0.00 0.00				<i>M/</i>	<i>11</i>	<i>01</i>	<i>19 (20)</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 63367

Thursday, October 28, 2010 9:57:48 AM



Page 3

Item ID: D2893-1

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Item Name: 2.75 Support

Start Date: 10/28/2010 Start Qty: 20.00



Cust Item ID:

Required Date: 11/18/2010 Req'd Qty: 20.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 QC Quality Control	QC14- Inspect Spray Paint Memo	0.00 0.00				<u>18</u>	<u>11</u>	<u>01</u>	<u>20</u> (20)
170 Packaging Packaging	Identify as per dwg & Stock Location: <u>X-tubes</u> <u>ASSY</u> Memo	0.00 0.00				<u>11</u>	<u>01</u>	<u>20</u>	(20)
180 QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							<u>11/01/20</u> <u>11</u>

11-01-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, October 28, 2010 9:57:52 AM

Page 1

Work Order ID: 63367



Parent Item: D2893-1



Parent Item Name: 2.75 Support

Start Date: 10/28/2010

Required Date: 11/18/2010

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP: C 02.11.26 Reformat; Added P/O KJ
 IPP D 06.04.19 removed alodine EC
 IPP Rev:E Added priming as per Rev B 07-04-30 JLM
 IPP F 08.03.19 Re-format EC verified by: DD
 IPP Rev:G 08-05-15 add QC14 DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK078		Manufactured	No			100	Each	10.0000	0.5	10			



D2893-1 TURNING DETAIL

Location

Loc Qty

Loc Code

MAT

10

60299

10

10 *sub 10/12/21*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	63367
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.985	3.005	Vern ML-7	2.993	2.995	2.995	2.995	2.994
AB	0.440	0.460	"	.440	.440	.440	.440	.440
AC	0.125	0.160	"	.140	.140	.140	.140	.140
AD	0.040	0.060	"	.052	.052	.052	.052	.053
AE	0.188	0.193	"	.191	.191	.191	.191	.191
AF	0.125	0.160	"	.138	.138	.138	.139	.138
AG	0.140	0.160	Micr 118-120	.151	.151	.151	.151	.151
AH	1.360	1.400	High-gage 31006	1.375	1.373	1.373	1.373	1.374
AI	0.040	0.060	Test indicator	.053	.053	.052	.052	.052
AJ	1.190	1.230	High-gage 31006	1.218	1.216	1.219	1.216	1.219
AK	0.010	0.020	Vern ML-7	.015	.015	.015	.015	.010
AL	0.053	0.073	Rad-gage REF	.063	.063	.063	.063	.063
AM	0.240	0.260	"	.250	.250	.250	.250	.250
AN	2.518	2.538	Vern ML-7	2.525	2.525	2.525	2.525	2.525
AO	84.39	90.39	"	87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266	Vern ML-7	.261	.261	.261	.261	.261
AQ	0.053	0.073	Rad-gage REF	.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

Measured by:	amf	Date:	10/12/22
Audited by:	SL	Date:	11/01/04
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	62367
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16	17	18	19	20
HAAS Section								
AA	2.985	3.005	Vern HI-7	2.995	2.994	2.994	2.995	2.996
AB	0.440	0.460	"	.440	.440	.440	.440	.440
AC	0.125	0.160	"	.135	.135	.135	.130	.130
AD	0.040	0.060	"	.051	.051	.050	.050	.050
AE	0.188	0.193	"	.191	.191	.191	.191	.191
AF	0.125	0.160	"	.143	.140	.140	.140	.140
AG	0.140	0.160	Micr 118-120	.151	.151	.151	.152	.152
AH	1.360	1.400	High-gage 31006	1.372	1.373	1.372	1.375	1.373
AI	0.040	0.060	Test Indicator	.052	.052	.051	.052	.052
AJ	1.190	1.230	High-gage 31006	1.215	1.216	1.217	1.216	1.216
AK	0.010	0.020	Vern HI-7	.010	.010	.010	.010	.010
AL	0.053	0.073	Rad-gage REF	.063	.063	.063	.063	.063
AM	0.240	0.260	"	.250	.250	.250	.250	.250
AN	2.518	2.538	Vern HI-7	2.525	2.525	2.525	2.520	2.520
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266	Vern HI-7	.261	.261	.261	.261	.261
AQ	0.053	0.073	Rad-gage REF	.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

Measured by:	<i>ML</i>	Date:	10/12/23
Audited by:	<i>JL</i>	Date:	11/01/24
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	<i>JA</i>

DART AEROSPACE LTD		Work Order: 63367
Description: Ø2.750 Support		Part Number: D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	11	12	13	14	15
HAAS Section								
AA	2.985	3.005	Vern HL-7	2.997	2.997	2.997	2.997	2.996
AB	0.440	0.460	" "	.440	.440	.440	.440	.440
AC	0.125	0.160	" "	.130	.130	.130	.130	.130
AD	0.040	0.060	" "	.050	.050	.050	.050	.050
AE	0.188	0.193	" "	.191	.191	.191	.191	.191
AF	0.125	0.160	" "	.140	.140	.140	.140	.140
AG	0.140	0.160	Milt 118-120	.151	.151	.151	.151	.151
AH	1.360	1.400	High-gage 31006	1.372	1.371	1.371	1.370	1.369
AI	0.040	0.060	test indicator	.050	.050	.050	.050	.050
AJ	1.190	1.230	High-gage 31006	1.216	1.212	1.212	1.213	1.212
AK	0.010	0.020	Vern HL-7	.010	.010	.010	.010	.010
AL	0.053	0.073	Rad-gage REF	.063	.063	.063	.063	.063
AM	0.240	0.260	" "	.250	.250	.250	.250	.250
AN	2.518	2.538	Vern HL-7	2.525	2.525	2.525	2.525	2.525
AO	84.39	90.39	" "	87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266	Vern HL-7	.261	.261	.261	.261	.261
AQ	0.053	0.073	Rad-gage REF	.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

Measured by: <i>amx</i>	Date: 10/12/23
Audited by: <i>jl</i>	Date: 11/01/04
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order: 63367
Description: Ø2.750 Support		Part Number: D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

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Dim	Min	Max	Go/No Go Gauge	16	17	18	19	20
HAAS Section								
AA	2.985	3.005	Vern HL-7	2.997	2.997	2.997	2.997	2.997
AB	0.440	0.460	" "	.440	.440	.440	.440	.440
AC	0.125	0.160	" "	.130	.130	.130	.130	.130
AD	0.040	0.060	" "	.057	.050	.050	.050	.050
AE	0.188	0.193	" "	.191	.191	.191	.191	.191
AF	0.125	0.160	" "	.140	.140	.140	.140	.140
AG	0.140	0.160	HL-7	.157	.157	.157	.157	.157
AH	1.360	1.400	HL-7	1.368	1.369	1.372	1.370	1.372
AI	0.040	0.060	Test Indicator	.057	.057	.057	.057	.057
AJ	1.190	1.230	HL-7	1.215	1.212	1.218	1.215	1.214
AK	0.010	0.020	Vern HL-7	.010	.010	.010	.010	.010
AL	0.053	0.073	Rad-gage REF	.063	.063	.063	.063	.063
AM	0.240	0.260	" "	.250	.250	.250	.250	.250
AN	2.518	2.538	Vern HL-7	2.525	2.525	2.523	2.523	2.523
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266	Vern HL-7	.261	.261	.261	.261	.261
AQ	0.053	0.073	Rad-gage REF	.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

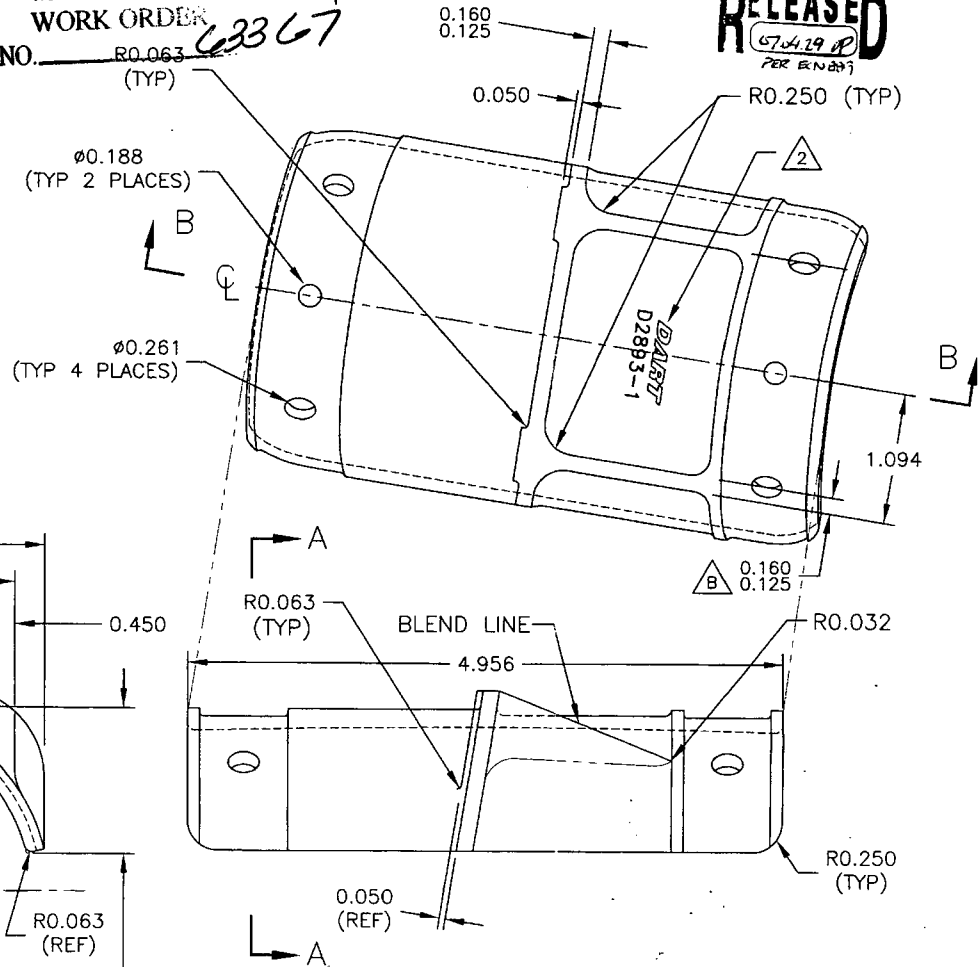
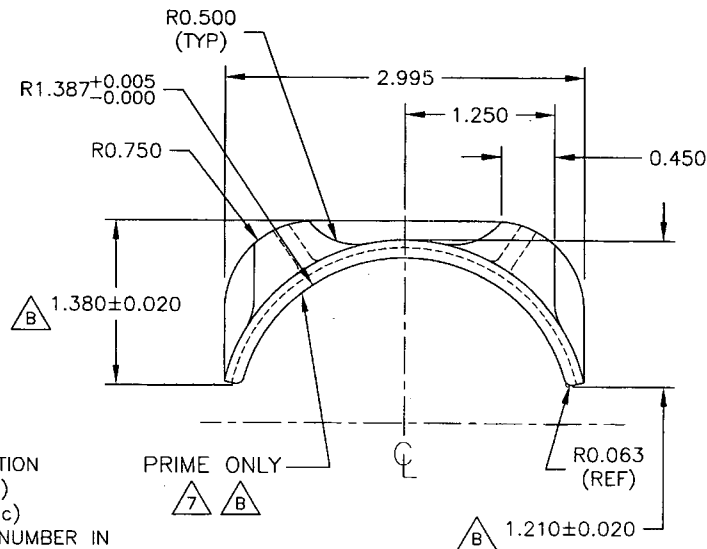
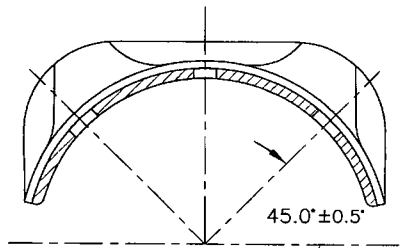
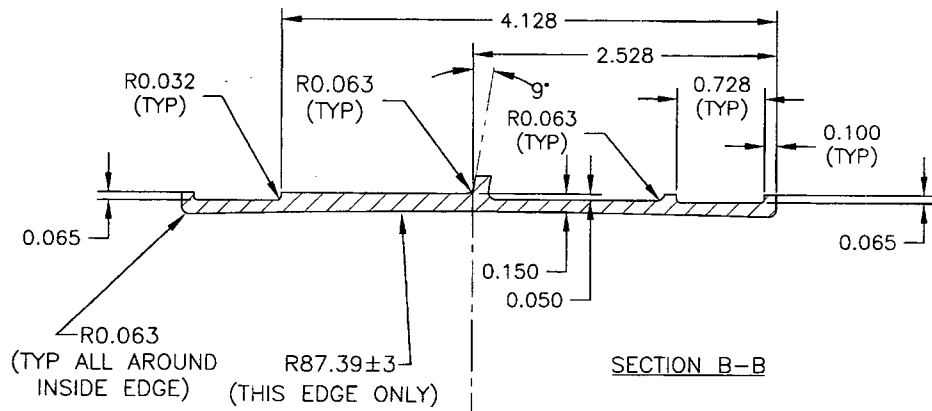
Measured by: <i>AK</i>	Date: 10/12/23
Audited by: <i>AK</i>	Date: 11/01/04
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	<i>AK</i>

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. R0.063 6367

110-10-21

RELEASED
674129
PER ENR 001



D2893-1

- 1) MATERIAL: 17-4 PH STAINLESS STEEL
HEAT TREAT TO H900 CONDITION
(900°F FOR 1 HR, AIR COOL)
MIN UTS = 170 KSI (38 HRC)
- 2) IDENTIFY WITH DART LOGO AND PART NUMBER IN
THIS AREA WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP
- 3) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3
PRIME INSIDE SURFACE AS SHOWN PER DART QSI 005 4.2

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THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

B	07.03.16	UPDATE DIMS AS -MFG., PRIME INSIDE
A	01.01.10	NEW ISSUE
DESIGN	97	DRAWN BY PH
CHECKED	PH	APPROVED
DATE	07.03.16	TITLE
		02.750 SUPPORT
		SCALE
		1:1

DART DART AEROSPACE LTD.
MARKESBURY, ONTARIO, CANADA

DRAWING NO. D2893
REV. B
SHEET 1 OF 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries